

foundation is this, that in gliding over the iris, in touching the ciliary bodies in certain points, an internal inflammation of the ocular globe might be produced; but the other methods are not exempt from these reproaches.—*La Lancette Française*, Oct. 1st, 1833.

SURGERY.

61. *New Method of Extracting the Stone from the Bladder, by a Perinæal Incision.*—Dr. MARIANO PANTALEO, the author of this method, remarks that the lateral operation is the one which has united the suffrages of the greater number of physicians, and that the only valid objection which can be made against it is, that it does not give a ready passage to large calculi. This inconvenience the author proposes to remedy by making a double incision of the prostate gland, but not after the method of MM. Dupuytren and Senn. Thus the left moiety of the incision regards the ascending branch of the ischium, as in the common lithotomy, while the other half is directed obliquely upwards, and to the right side.

According to Dr. Pantaleo, it is the superior portion of the prostate gland which offers the greatest resistance to the dilatation of the neck of the bladder wherever the incision is made low down; hence the most rational method is that by which this obstacle is overcome, and it was by following this principle that Martineau, according to the author, obtained his brilliant success.

The bilateral operation, as proposed by M. Dupuytren, has the advantage of giving passage to very large calculi, but is attended with some inconveniences; thus it exposes us to divide the bulb of the urethra, which is so much developed in old subjects, and particularly in calculous patients; or if we approach the incision too close to the anus, in order to avoid it, we run the greater risk of dividing the intestine. The incision of Beclard avoids the bulb, but it is too near the rectum, and not being parallel to the external incision, gives rise to the danger of an infiltration of urine.

Finally, the two incisions practised laterally by M. Dupuytren, leave the superior portion of the prostate gland untouched, and others do not remove the obstacle which has been noticed to the dilatation of the neck of the bladder.

The author's instrument is a double lithotome caché, the blades of which separate opposite one another, and to the usual extent. He makes an incision in the ordinary manner along the left side of the perinæum, opens the membranous portion of the urethra, and introduces the lithotome along the sound into the bladder. Having estimated the volume of the calculus, the blades of the lithotome are now opened to the proper size, the handle so fixed that the internal incision shall be exactly parallel to the external one, and the instrument is drawn outwards; hence results an inferior incision on the left side of the prostate, and a superior one on the right, or, in other words, the gland is divided by an oblique diameter, running upwards, and from left to right; this, according to the author, gives the most favourably disposed wound for the extraction of a stone; it is very regular, parallel to that of the integuments, and readily dilated.—*Lancet*, July 12th, 1834.

62. *Treatment of Club-foot, by Dividing the Tendo-achillis; a new Operation.* By Dr. LOUIS STROMEYER.—A division of the tendo-archilles has only been proposed in cases of amputation of the foot, by the method of Chopart, after which operation the foot is apt to be drawn backwards by the muscles on the back of the leg, predominating over those left upon the front part. This operation was received at first but coolly, and as cases suitable for its application were of very rare occurrence, it had fallen into complete neglect, when it was revived by Delpach for the relief of those cases of club-foot, termed *piéd équin* where the heel is drawn forcibly backwards. It is based upon the important fact,

that in all cases of rupture of the tendo-achillis, instead of an immediate reunion taking place between the two extremities of the tendon, a sort of pad is found between them, which in time elongates itself to such an extent, that the entire length of the tendon is frequently very much increased, whilst at the same time its original strength is not impaired. The two following very interesting cases reported by Dr. Stromeyer prove that the theory of this practice is borne out by experience.

Observation I.—George Ehlers, æt. 19, a student of the seminary of Hanover, had laboured under a deformity of the left foot, which according to the statement of his parents, had first appeared when he was four years old, and without any manifest cause. He had been subjected at this time to various treatments, which had produced temporary benefit, but in spite of every thing the disease continued to increase, and at last became so bad that the patient was unable to walk a step. From the application of the different machines, &c. employed to keep the foot in a proper position, excoriations, and even ulcerations of some depth were produced, which after a time became complicated with caries of the metatarsal bone of the little toe, that required several years for its cure. In consequence of the pain and distress produced by almost every method of treatment, the parents determined to let nature have her way, and discarded every thing like regular treatment, merely attaching a wooden leg upon which the tuberosity of the ischium rested; with this contrivance the patient made shift to get along. In the month of October, 1830, the patient was brought to the orthopedic establishment of Dr. Stromeyer for the first time, and presented the following appearances. The left foot excessively deformed, the toes being forcibly drawn downwards and inwards; the external margin of the foot corresponded precisely with the axis of the leg, and the whole foot was extended to such a degree by the contraction of the muscles of the calf of the leg, that the margins of the foot formed a straight line with the anterior face of the leg. On the upper portion of the external margin of the foot there existed two callous spots, the remaining of those which had been formed in this position when the patient could walk. The degree of mobility enjoyed by the foot was extremely small, and the whole leg was very much emaciated. By the continued use of the wooden leg the limb had acquired a remarkable deviation from its natural condition; the deviation consisted in a projection outwards of the leg from the knee-joint. The length of the two extremities were nevertheless nearly equal, allowing for the great deformity existing in one of them. The right was large, and the muscles well developed, the superior surface of the right foot, however, was so projecting that the foot seemed to be much shorter than natural, and approached somewhat the same species of deformity with which the other was affected. Yet this peculiar conformation did not interfere with the motions of the foot. This circumstance should be recollected, as it shows that the original cause of club-foot may have its origin in the spinal marrow. The prognosis in a case of such great deformity was of course extremely unfavourable, yet as the patient was resolved to submit to any plan of treatment whatsoever that might be advised, Dr. Stromeyer determined to make an effort to relieve him, and he was the more willing to do this as there still remained some degree of mobility in the joints of the foot. Powerful extension was resorted to, and continued for the space of three months without any amelioration in the position of the foot, except that its sole was brought a little nearer the horizontal line. Excoriations were also produced by the bandages. After being fully convinced of the inutility of this plan, the Doctor determined to perform as a “dernier resource,” the section of the tendo-achillis. To this the patient readily consented. On the 28th of February, 1831, the operation was performed in the following manner. The patient was placed upon a table, with his left side presenting to the operator. The knee was firmly fixed by an assistant, and the foot firmly supported, and fixed in such a manner as to cause the tendo-achillis to be put upon the stretch by another. The instrument, a very narrow, sharp-pointed bistoury, was then introduced between

the tendon and the tibia, about two inches above the insertion of the latter, and in such a manner that its back part looked towards the bone, and its cutting edge towards the tendon, the latter was then divided. The object in using a small knife was to make the external wounds as small as possible, in order to prevent the introduction of air into the cavity, and the consequent suppuration and exfoliation of the tendon. This was divided without an opening, except that made by the knife in entering, being made in the skin. The hæmorrhage was little or none. The interval between the two extremities was about three-quarters of an inch in length, but the position of the foot was not materially altered. By extending the foot, the two cut extremities were placed in immediate contact. The external wounds made by the bistoury were covered over with a piece of adhesive plaster, and two long pads placed one on each side of the tendon, and confined by a few turns of the roller, which was afterwards carried over the foot, and so arranged as to keep it in a state of extension. It was not judged necessary to use a splint, the muscles of the leg being in such a state of atrophy that there was no apprehension of a displacement of the extremities of the tendon by their contraction taking place. The limb was placed upon its outer side, and supported in an elevated position by pillows. By the tenth day the two extremities were found to be perfectly united to each other, and the pain and slight degree of swelling that had existed for the first few days after the operation, had entirely disappeared. It was now deemed proper to commence with the extension of the intermediate substance. The foot at this time formed with the leg a very obtuse angle. The degree of extension for the first few days was very moderate, and applied with great caution for fear of breaking up the new adhesions, and moreover to avoid giving the patient unnecessary pain, who complained of pain in the cicatrix whenever it was carried to any extent. In eight weeks from the time when the extending bands were first applied, the foot was found to form with the leg a complete right angle. The Dr. was now enabled to apply a sort of boot, furnished on the outer side with an iron splint, which was interrupted opposite the ankle joint by a hinge. The hinge was furnished with a screw, by which the angle of the foot with the leg might be changed at pleasure; with the aid of this boot, and with a stick the patient was enabled to walk about his room, but the limb weakened by long inaction, soon became fatigued and swollen. From this time forward he continued gradually to improve, though the swelling for which frictions with camphorated spirit was prescribed occasionally would show itself. In two months time this had entirely disappeared; the foot formed with the leg a perfect right angle, its external margin being perfectly horizontal; the muscles of the calf of the leg had acquired considerable size, though still situated higher up than natural; his gait was without any imperfection whatever; in short a complete cure had been effected. The patient was examined eighteen months after the performance of the operation, and it was found that no disposition to a return to its unnatural position had been manifested by the foot, the knee had also regained its natural direction, and the patient walked without a stick. It is obvious that the success met with in this case was dependent upon the division of the tendon; the muscles of the calf having remained almost in the same position during the whole treatment, shows that it was not by an extension of their fibres that the cure was effected.

Observation II.—The second case is that of a M. Blumenthal, æt. 32, whose left foot was the seat of the deformity. He stated that at the age of eighteen months he was attacked with an inflammatory affection, accompanied with convulsions, and that during this illness the deformity had commenced. The deviation increased gradually from this time forwards, but had not until within a few years past prevented his walking about and attending to his business; latterly, however, it had arrived to such a degree, that he was sometimes obliged to confine himself to his bed. Upon examination, the foot seemed to have almost reached the highest grade of deformity. Its outer margin, as well as the toes, were drawn downwards and inwards to such a degree, that in walk-

ing the back of the foot came in contact with the ground, and from the continual pressure which it had necessarily undergone, was covered by a thick and horny collosity. The point of the foot deviated so much from its natural position, that in walking it looked directly backwards, and by coming in contact with the ankle joint of the other foot, kept it in a constant state of irritation. The heel was elevated to some height, and did not touch the ground at all in walking. The muscles of the calf were sufficiently well developed, though situated higher up the leg than natural; the tendo-achillis on the contrary was smaller than natural. Notwithstanding the extreme degree of deformity, the articulations of the foot were moveable, though it is true not to any great extent. The first thing that was done in this case was the removal of the callous from the back of the foot, and from its outer margin; (the callous in some places was half an inch thick.) The foot was then dressed and placed in the extending machine for three weeks, with the design of placing the foot under the axis of the leg, which was in part effected. On the 12th of June, 1832, the tendon was divided as in the first case, with the exception that the knife was introduced three inches instead of two, above the insertion of the tendon, in order that the newly-formed tissue might be as far removed as possible from the spot upon which the extending bands were afterwards to be placed. The dressings here also resembled those made use of in the first case, only it was thought better from the size of the muscles of the calf to place a splint upon the anterior face of the foot, so as to prevent their spontaneous contraction. In a short time after the operation the patient was attacked by cramps in the calf of the leg that had been operated upon, which came on the moment he went to sleep; in this way he was kept awake all night. The next day the bandage was taken off, and the extremities of the tendon brought into contact, and a roller passed up the leg to prevent the contraction of the muscles. Nevertheless they reappeared more violently than before, and the patient passed another sleepless night. The bandage was taken off, and the splint applied, the foot and lower part of the leg only being enveloped by a roller. From this time the cramps never again appeared. Ten days having elapsed, and the extremities of the tendon being firmly united, the apparatus for extension was applied. In about ten weeks after the performance of the operation, the patient quitted Hanover in the following condition. The foot formed with the leg a complete right angle, and in walking its sole came into uniform contact with the ground. There nevertheless remained some traces of the original deformity. The back of the foot was still very convex, which proceeded from a manifest curvature in the metatarsal bones; and the thenar eminence was also turned inwards. When walking with care the foot was turned outwards, when, however, he walked without paying any attention, or very quickly, the point of the foot still directed itself a little inwards, though without striking against the other foot. The muscles of the calf of the leg were well developed, though situated higher up than in the right. It was also impossible in this case, as in the other, to determine with certainty the length of the substance formed between the divided extremities of the tendo-achillis, although the space made by a division of the tendon was more perceptible than in the first.

There is probably no other case on record, where a deformity of the foot, so extreme in its character, and of such ancient date, has been converted by the efforts of art into a condition so nearly normal. The circumstances which induced the doctor to undertake the treatment of the case should also be recollected; they were—1st. The ankle joints being still slightly moveable; 2d. The muscles of the calf of the leg being still tolerably well-developed; and finally, the foot being covered by a solid dermoid coat, there was not much tendency to excoriation. It yet remains for us to describe the apparatus by means of which this extraordinary cure was effected. It consists of a splint, somewhat wider than the leg, upon which the latter was made to rest. At the point corresponding with the heel, the splint was divided by a mortice cut in its centre into two equal parts, which were made to extend some inches beyond the sole

of the foot. To the bottom of the mortice, and close to the heel, a sort of wooden sole was attached by a moveable articulation, by which means the angle which it formed with the long splint might be either increased or diminished. Two cords were attached to the superior third of the wooden sole, and then carried over two pulleys, solidly fixed to the edges of the long splint, upon a line corresponding to the inferior third of the leg. After they had passed round the pulleys, they were brought down the edges of the splint until they reached the extremities of the arms of the mortice, where they were attached to a small cylinder, which turned with a crank. By fixing the foot firmly to the wooden sole, and thus turning the cylinders to which were attached the cords, the whole foot might be made to approach a right angle, and be retained in that position as long a time as could be supported by the patient. The degree of force that could be applied with this apparatus, although very considerable, could nevertheless be limited by reversing the action of the cylinder to any extent whatever.—*Gaz. Méd. Sept. 28th, 1833, from Rust's Mag. Vol. XXIX.*

63. *Subcutaneous Vascular Nævus*.—W. C. WORTHINGTON, Esq. reports in the *Lancet*, (12th July last,) the case of an infant with this disease, situate on the right side of the chest just below the axilla, in size a little exceeding a shilling. The surface of the nævus was rubbed a few times with an ointment of tartar emetic, when it became covered with pustules, which were soon confluent; granulations sprung up, which were occasionally touched with the nitrate of silver; simple adhesive plaster was then applied as a dressing, and a complete cure effected, nothing remaining but a superficial cicatrix.

Mr. C. Hickman, in a former number of the same journal, (for April, 1834,) reported a case of vascular nævus cured by the application of a liniment composed of tartar emetic and olive oil.

64. *Imperforate Anus existing for Two Months*.—The subject of this case was a female infant who, when two months of age, was in an almost dying condition, taken to M. Caussade. This infant vomited fecal matters; had hiccup; the pulse was small, contracted; the face livid, and covered with sweat; the voice almost extinct; and the abdomen much distended. She had been placed out to nurse immediately after her birth; her clouts were observed to be wet and slightly soiled, but the nurse never observed any alvine evacuation as in other children. As the little one was, however, in good health, and even grew fat, the nurse continued to suckle her without seeking the cause of the absence of alvine evacuations. On examining the infant, M. C. found that there was no anus, or trace of one. She passed through a capillary opening at the posterior part of the vulva, very near to the hymen, a thick and yellowish fluid, which, when the infant cried and struggled, spouted out as if discharged from the spout of a small syringe. During the straining of the infant, a tumour projected in the perinæum, and in a part of the breech. To relieve the perforation, M. Caussade made an incision three or four lines in depth in the place which the anus ought to have occupied. He found at the bottom of the incision a mass of hard and yellow fecal matters. It was necessary to break them up, and they were removed by means of a scoop. Several injections were administered, which brought away a large quantity of yellow liquid matter. The wound was kept open by a lint tent. The next day the fecal matters were readily discharged, all the unpleasant symptoms ceased, and the health of the little patient was restored.—*Gazette des Hôpitaux, March 29th, 1834.*

65. *Successful Treatment of Disunited Fracture by the Tourniquet*.—In a case of disunited fracture of the femur of twenty-one weeks' standing, and which resisted all the ordinary means of procuring union, has been successfully treated in St. Bartholomew's Hospital by the application of tourniquets lightly round the fractured part of the limb. The patient was middle-aged, and in the enjoyment of excellent health.—*Lond. Med. and Surg. Journ. Sept. 28th, 1833.*